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May 26, 2010

To: Phyllis Wise, Provost  
Douglas J. Wadden, Executive Vice Provost for Academic Affairs and Planning

From: Gerald J. Baldasty, Vice Provost and Dean  
James S. Antony, Associate Vice Provost and Associate Dean for Academic Affairs

RE: Review of the School of Pharmacy

This memo outlines the recommendations from the review of the School of Pharmacy and its graduate degree programs. The school consists of three departments: Medicinal Chemistry, Pharmaceutics, and Pharmacy, each of which offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees. In addition, the school offers the Master of Science in Biomedical Regulatory Affairs (MSBRA). The professional Doctor of Pharmacy degree, also offered by the school, is outside the purview of the current review. Detailed comments on the school and its graduate programs can be found in the documents that were part of the following formal review proceedings:

- Pharmacy self-study (November, 2009)
- Charge meeting between review committee and administrators (May 26, 2009)
- Site visit (February 8-9, 2010)
- Review committee report (February 25, 2010)
- Graduate and Professional Student Senate Report (March 1, 2010)
- Pharmacy response to the review committee report (April 1, 2010)
- Graduate School Council consideration of review (May 20, 2010)

The review committee consisted of:

Raymond J. Monnat, Professor, UW Pathology (Committee Chair)  
Victoria L. Holt, Professor, UW Epidemiology  
Deborah E. McCutchen, Professor, UW Education  
Kim Brouwer, Professor and Chair, School of Pharmacy, University of North Carolina,  
Chapel Hill  
Daniel C. Malone, Professor, College of Pharmacy, University of Arizona

A subcommittee of the Graduate School Council presented findings and recommendations to the full Council at its meeting on May 20, 2010. After discussion, Council recommended continuing status for the school's MS and PhD programs, with the next review to be scheduled for the 2019-2020 academic year. The Council recommended the MSBRA program be reviewed by the Graduate School in five years, during the 2014-2015 academic year. Specific comments and recommendations regarding the school and its degree programs include the following:

#### Program Strengths

- The academic and research programs of the School of Pharmacy have maintained an impressive national and international standing over many years, with the combined graduate programs ranked at the top of the discipline.
- Program graduates largely go on to prestigious jobs or training opportunities.
- Research carried on in the school has good grant support and routinely is published in respected journals.
- The Dean is energetic, enthusiastic and has a broad vision of the unit's mission. He has strong support from the faculty and there is a strong Corporate Advisory Board.
- Faculty members have maintained an enviable record of training and research accomplishments.
- Over the past 10 years, the school has been successful in recruiting junior and senior faculty and talented students, including women and minorities.
- The human resources of the school have positioned it to pursue exciting new research directions and secure new funding from federal and industrial sources.

#### Challenges & Risks

##### **School-wide challenges and risks:**

- A substantial risk to the school is the level of institutional commitment to maintaining the preeminence of the program. In the review committee's assessment, there is only "modest" institutional financial support and "inadequate space to support even current School research and training missions."
- Currently, 20% of the total School of Pharmacy space is off-campus; this threatens continuing programmatic cohesiveness, development of new initiations, and future faculty recruitment.
- There is inconsistent and sometimes poor communication with students of program expectations, student progress, and program requirements.
- There exists a need for updated course evaluations and updated course curricula, including training in biomedical research integrity and responsible conduct of research.
- Trainee support is inconsistent, and there are limited teaching and internship opportunities.

In response to the articulation of these issues by the review committee, the school proposes to coordinate its efforts to better communicate important information to graduate students and to better support its overall educational mission. There is a new standing school committee, the Graduate Programs Steering Committee, composed of the four directors of graduate studies (one from each department or program). This committee will consolidate the student handbooks, update and revise student-relevant

content for the school's website, and make yearly progress reports on student educational issues to the Dean and the faculty. In addition, the school is "exploring a relevant mix of training formats" to educate students on biomedical research integrity and ethics.

#### **Medicinal Chemistry Challenges and Risks:**

- Attracting the highest quality faculty in light of the "paucity of appropriately trained outstanding scientists seeking academic positions" in the field.
- Space limitations.
- Modification of graduate curriculum to accommodate "new" pharmaceutical sciences.
- Failure to clearly and accurately communicate program expectations and requirements; this has likely contributed to an "unacceptably long" time to degree.

In response, Medicinal Chemistry recognizes that it needs to explore entrepreneurial approaches to build external support for new faculty and to secure appropriate research space for faculty recruitment. The program also plans to develop more collaborative ties with other units on campus, including exploring ways to incorporate staff from the Center for Intracellular Delivery of Biologics into newly designed coursework. The Director of Graduate Studies is charged with addressing curricular issues, including streamlining the requirements and assuring graduate student advising.

#### **Pharmaceutics Challenges and Risks:**

- Availability of space for program expansion and the shared student issues detailed above.

In response, Pharmaceutics plans to maintain interdisciplinary and collaborative ties to other units on campus including Genome Sciences, the Center for Ecogenetics and Environmental Health, and Biomedical Health Informatics. The Director of Graduate Studies will hold yearly meetings with the department's students for discussion of policies and procedures. The department recently completed its own curriculum review, resulting in simplified requirements, and is currently assessing the impacts of these changes. Further modifications will be made, as needed.

#### **Pharmaceutical Outcomes, Research and Policy Program (PORPP) Challenges and Risks:**

- Recruiting highly qualified faculty to mentor students, replace faculty following retirements, and build outreach programs.
- Lack of federal research support for outcomes research and policy analysis.
- The need for more internal courses and/or better access to courses in the School of Public Health and elsewhere.

In response, PORPP outlined that it works with contacts in other training programs and with their Corporate Advisory Board to identify potential faculty candidates. The program also encourages the use of post-doctoral positions to identify young researchers who may be interested in subsequent faculty positions. Several current faculty have been recruited in such a manner. The NIH has not traditionally focused on translational and implementation research, but the faculty have been able to take advantage of the recent increase in funding opportunities made available through ARRA funding. Finally, the Director of Graduate Studies and Chair of the Curriculum Review Committee will work

to identify topics for development of additional courses and seek formal agreements with the School of Public Health for access to other courses.

### **Master of Science in Biomedical Regulatory Affairs Challenges and Risks:**

- Program coordination and “fine-tuning” of course content, curricular structure, and MSBRA practicum availability.
- Sustainability as a fee-based program.
- Significant programmatic burden carried by one regular faculty (25% effort) and one senior lecturer (50-75% effort).

Because the MSBRA program is new (first graduating class in Spring 2010), the faculty have focused much of their attention on refining the course content and curricular structure. The faculty report that they have approached several international professional organizations to assist them in a curriculum mapping exercise as part of their efforts to improve their curriculum. In addition, the MSBRA leadership is working with UWEO on annual programmatic and marketing planning activities. The program has tried to hire another faculty member (50% effort), but has not yet identified an appropriate candidate.

### Areas of Concurrence and/or Disagreement

In general, the school and its departments agreed with most of the review committee assessments and suggestions. Several suggestions have already been acted upon since the review was submitted, as outlined in the school’s response to the review committee. The most substantial disagreement between the review committee and the responsible unit relates to the MSBRA program:

- The review committee report recommends internal school review of the MSBRA program in three years and an external Graduate School review in 5 years due to concerns about the practicum program, long term program sustainability, and the heavy administrative burden shouldered by the program director. The School of Pharmacy proposed a different review schedule: internal school review of the program in 2012 and a full external review by the Graduate School in 2019-2010 (at the time of the next full School of Pharmacy review).

### Graduate School Council Recommendations

- Pharmacy is urged to continue its efforts to address the review committee recommendations, which were felt to be pertinent and constructive.
- Continuing status for the MS and PhD programs in Medicinal Chemistry, Pharmaceutics, and the Pharmaceutical Outcomes, Research and Policy Program, with the next review in ten years (2019-2020 academic year).
- Graduate School review of the MSBRA program in five years, during the 2014-2015 academic year. At the discretion of the Dean of the Graduate School, the review may be limited in scope to include only University of Washington reviewers or otherwise be focused on specific issues relevant to program quality and sustainability.

We concur with the Council’s comments and recommendations.

cc: Thomas A. Baillie, Dean, School of Pharmacy  
Stanley S. Weber, Associate Dean for Professional Education, School of Pharmacy  
Members of the Pharmacy Review Committee  
Members of the Graduate School Council  
David Canfield-Budde, Academic Program Specialist, The Graduate School  
GPSS President